

Appl. No. 10/691,268
Atty. Docket No.: 2001B105/2
Amdt. dated June 26, 2006
Reply to Final Office Action of May 4, 2006

REMARKS/ARGUMENTS

Application Amendments

By the amendments presented, the main catalyst composition Claim 20 would be rewritten to specify that the catalyst composition comprises a molecular sieve which is synthesized by a specific set of steps. Express support for this amendment to Claims 20 can be found in the original specification on Page 5, lines 13-27.

Upon entry of the claim amendments presented, Claims 20-22 and 31-37 would remain in the application. No additional claims fee would be due as a result of the claim amendment presented herein.

Invention Synopsis

The present invention, as now claimed, is directed to molecular sieve catalyst compositions containing a molecular sieve which comprises specific components and which is prepared in a specific way. The specific components include a templating agent, a polymeric base and a source of at least one of silicon, aluminum, and/or phosphorous. Molecular sieves comprising these materials are prepared by forming a reaction mixture which contains the templating agent and the silicon, aluminum, and/or phosphorus source; adding the polymeric base to this reaction mixture; and then recovering the molecular sieve from this reaction mixture. These catalyst compositions which contain molecular sieves comprising these materials and made in this way are cost-effective catalysts useful for promoting conversion reactions including hydrocarbon and oxygenate conversion.

Formal Matters

Claim 20 as amended in Applicants' previous response has been finally rejected under 35 USC §112, both First and Second Paragraphs, as lacking in antecedent basis and support in the specification for the phrase "the reaction mixture," which was incorporated into this claim via Applicants' Amendment submitted February 17, 2006. In response to this rejection, Applicants would amend Claim 20 herein to remove the previously added claim language involving "the" reaction mixture and to recite in Claim 20 instead the steps of the express molecular sieve

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synthesis procedure as set forth in the original specification on Page 5, lines 13-27. It is submitted that such an amendment to Claim 20 would obviate the rejection of this claim under both the First and Second Paragraphs of 35 USC §112.

Art Rejection

Claims 20-22 and 31-37 have been finally rejected under 35 USC §103(a) as allegedly being rendered unpatentably obvious by the reference combination of Lok et al. (U.S. 4,440,871, hereinafter "Lok") in view of Davis (EP-A-463,793, hereinafter "Davis"). The Examiner maintains the position that it would have been obvious to modify the Lok silicoaluminophosphate containing a template by using the Lok composition "in a polymer (oligomer)" as disclosed by Davis. Such a rejection is again respectfully traversed as it would apply to the claims as amended herein.

By way of review, Lok discloses the preparation of a silicoaluminophosphate (SAPO) molecular sieve material using an organic template in the forming mixture such that the resulting molecular sieve contains the template. As the Examiner acknowledges, Lok does not disclose the use of a polymeric base in the forming solution or the presence of any polymeric base in the resulting molecular sieve.

Davis discloses preparation of SAPO molecular sieves using a "directing agent", i.e., a template, comprising a combination of a quaternary nitrogen compound and an amine and further discloses use of the resulting SAPO to oligomerize olefins. Davis does not, however, disclose preparation of SAPOs using any polymeric base in the forming mixture or any polymeric base added to or present within the SAPO catalyst after its preparation.

It is again respectfully submitted that the skilled artisan would not be lead to Applicants' molecular sieve catalyst compositions, as would be claimed after the amendments presented herein, by modifying Lok in any way suggested by Davis. The amine component of the Davis directing agent may be a polyamine, i.e., a material having more than one amino moiety therein, but such materials are not inherently polymeric bases. And no amine materials which are specifically disclosed in Davis are polymeric bases.

Further, Applicants would reiterate that the use of the Davis SAPOs to oligomerize olefins does not result in any SAPOs which themselves contain a polymeric base or even in the

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production of any materials which are polymeric bases. (Olefin oligomers, for example, are not polymeric bases.) Accordingly, the combined disclosures of Lok and Davis fail to teach or suggest any molecular sieve materials such as SAPOs which contain both template and polymeric base from any source. And certainly, therefore, the applied reference matrix further fails to suggest molecular sieve compositions wherein the molecular sieve component thereof contains both of these template and polymeric base components by virtue of these two types of materials having been present together in the reaction mixture used to form this molecular sieve component.

Given the foregoing considerations, it is apparent that the amended claims now presented with this response contain a combination of elements which is not disclosed or suggested by the reference matrix of Lok in view of Davis. Accordingly, continued rejection of these amended claims under 35 USC §103 over these two references would be improper.

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CONCLUSION

Applicants have made an earnest effort to place their application in proper form and to distinguish their claimed invention from the applied prior art. WHEREFORE, reconsideration of this application, entry of the Claim 20 amendment presented herein, withdrawal of the claim rejections under 35 USC §112 and 35 USC §103, and allowance of amended Claims 20-22 and 31-37 are respectfully requested. Alternatively, entry of the amendment presented herein in order to place the claims in better form for appeal is respectfully requested.

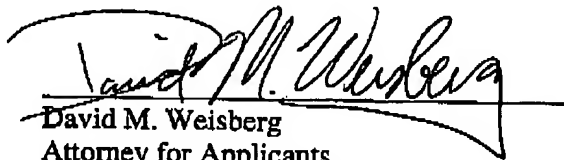
It is also respectfully requested that the Examiner expeditiously notify Applicants' undersigned attorney as to the disposition of the amendments and remarks presented herein in accordance with MPEP §714.13.

Any comments or questions concerning the application can be directed to the undersigned at the telephone number given below

Respectfully submitted,

Date: _____

06/29/06


David M. Weisberg
Attorney for Applicants
Registration No. 57,636

Post Office Address (to which correspondence is to be sent):
ExxonMobil Chemical Company
Law Technology
P.O. Box 2149
Baytown, Texas 77522-2149
Telephone No. (281) 834-0599
Facsimile No. (281) 834-2495